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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CHANNAVAJALA, LAKSHMI SARADA

ART UNIT	PAPER NUMBER
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1615

DATE MAILED: 08/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/092,530

Applicant(s)

DUBIEF ET AL.

Examiner

Lakshmi S Channavajjala

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30,32-39,42-59 and 61-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30, 32-39, 42-50, 52-59 and 61-67 is/are rejected.
- 7) ☒ Claim(s) 51 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claims 30, 32-39, 42-59 and 61-67 are pending.

The following action of record has been maintained:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 30, 32-39, 42-50, 52-59 and 61-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 93/23009.

WO '009 teaches cosmetic compositions containing vinyl silicone graft or block copolymers. The vinyl-silicone copolymer of WO '009 contains a silicone backbone with a vinyl polymeric segment grafted on to the backbone (structure on page 8). The vinyl polymeric segment represented by "A" includes the claimed monomers of instant claims 33-39 (pages 11-14). Applicants also admit that the suitable polysiloxane polymers for present invention include those taught by WO '009 (page 1, lines 21-26). Further, WO '009 teaches 0.01% to 30% by weight of vinyl-silicone copolymers in hair care products such as shampoos, hair rinses, hair setting products (pages 40-41).

WO '009 teaches the hair care products in the form of liquid, cream, gel, rinse-off or leave-on products etc (pages 40-43). WO '009 also teaches aerosol sprays, pump sprays etc., for setting hair in the desired style (page 41, examples 26-30). In particular, WO '009 teaches skin care and hair care compositions and teaches that the silicone polymers when incorporated in hair

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care compositions impart excellent brilliance, gloss, conditioning and style retention to hair without stiff or sticky feel (page 7, lines 17-20).

WO '009 particularly teaches that for hair care compositions, the vinyl-silicone polymers can be used in combination with conventional polymers such as anionic, cationic or amphoteric polymers (page 42, lines 21-26). However, WO '009 fails to teach aqueous dispersion of insoluble particles of at least one cationic polymer of the instant claims. With respect to the solvent to be used, WO '009 suggests that the solvent must be selected so as to dissolve or disperse the silicone polymer being used. Thus, WO '009 teaches preparing hair care composition in the form of aerosols containing the claimed silicone polymers and further suggests adding copolymers selected from cationic, anionic, amphoteric or nonionic polymers. WO '009 also teaches the amount of silicone polymer and solvents that include the claimed ranges. Accordingly, it would have been obvious for one of an ordinary skill in the art at the time of the instant invention to use a combination of polysiloxane polymers in combination polymers such as cationic, anionic etc polymers and further, depending on the polymer used, choose a solvent such that a dispersion or a solution containing silicone polymer is prepared, depending on if the hair composition is left on the hair or rinsed off. Accordingly, in absence of showing criticality one of a skilled artisan would chose an appropriate cationic polymer in the hair care composition of WO '009 containing a silicone polymer with a polysiloxane backbone with an expectation to provide excellent brilliance, gloss, conditioning and style retention to hair without stiff or sticky feel.

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Allowable Subject Matter

Claims 51 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

Instant claim recites an aqueous dispersion made of specific cationic polymers i.e., copolymers of acrylamide and trimethylammonioethyl methacrylate; and copolymers of alkyl methacrylate, alkyl acrylate and trimethylammonioethyl (meth)acrylate. The prior art of record does not recognize a specific combination of the claimed grafted silicone polymer having a polysiloxane skeleton with a non-silicone organic monomers and an aqueous dispersion comprising particles of the specific cationic polymer of the instant claim, in an aerosol. The closest prior art (US 5,632,998) teaches cationic polymers, but teaches away from silicone-grafted polysiloxanes as conditioning agents and suggest replacing with non-silicone polymer for improved hair adhesion/hold, economics, conditioning etc. Accordingly, the claimed combination of polysiloxane polymers and the specific cationic polymers of claim 51 are non-obvious from the prior art.

Response to Arguments

Applicant's arguments filed 4-28-04 have been fully considered but they are not persuasive.

Rejection of claims 30, 32-39, 42-50, 52-59 and 61-67 as being unpatentable under 35 USC 103(a) over WO 93/23009 to Kumar (Kumar):

Applicants argue that preset inventors sought to create compositions with improved cosmetic properties such as improved fixing power, as required by claims. Applicants argue that Kumar's composition and other compositions with aqueous dispersions of insoluble polymer particles do not meet these needs. Applicants argue that Kumar never mentions fixing power of its composition can be improved by incorporating polymer let alone the presently claimed "at least one aqueous dispersion of insoluble particles of at least one cationic polymer". Applicants argue that Kumar teaches that its composition already provide styling hold benefits and hence there is no reason why one skilled in the art would have even thought of modifying to improve its fixing power.

Applicants' arguments are not persuasive because instant claims, except claims 65 and 66, are directed to a composition and not to a method of improving fixing power. Besides, examiner notes that instant claim 30 recites in an amount required for fixing keratin and not for improved fixing power. Kumar teaches the compositions containing silicone polymers for hair treating applications, including hair styling, holding, hair setting etc (page 41, lines 7-19). Further, Kumar states that the silicone polymers used in hair styling/holding applications are used a total or partial substitute or in combination with the conventionally used anionic, cationic, nonionic or amphoteric polymers. Thus, Kumar generally teaches the combination of claimed silicone polymers and cationic, anionic or nonionic polymers, which applicants also admit on page 4 of their response.

Applicants argue that Kumar provides no teaching that leads one of to modify the reference because the reference teaches the combination only in general. Applicants argue that given the numerous types of polymers, why a skilled artisan would choose cationic polymers?

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The motivation to choose an appropriate polymer in combination with silicone polymers comes from the teaching that these polymers are conventionally used in the hair care, particularly for hair styling and holding compositions. Applicants' argument that Kumar primarily touts the benefits of silicone and hence Kumar suggests doing otherwise is moot because Kumar nowhere mentions or suggests doing otherwise. Besides, Kumar suggests combining silicone polymers with other polymers. A teaching of combining two components does not reflect of teaching away of one from the other. With respect to applicants' argument that Kumar does not even require combining silicone polymers with other polymers is not persuasive because one of an ordinary skill in the art would have known from the teachings of Kumar that silicone polymers and other anionic, cationic or nonionic polymers are effective in providing hair holding or styling benefits, either individually or in combination and that they can be used alone or in combination.

In response to applicants' argument that the teaching of Kumar regarding the cationic, anionic or nonionic polymers is only general and does not provide motivation, examiner notes that applicants have not provided any evidence that the claimed polymer provides any improved benefit as opposed to the other polymers taught by Kumar. Besides, choosing an appropriate polymer from a group of polymers, all of which are taught for the same effect, by optimization would have been within the scope if a skilled artisan. Further, Kumar states that in preparing the compositions containing silicone polymers, the solvent must be selected to either disperse or dissolve the silicon polymer, and that a sufficient amount of silicon polymer is employed so as to provide the hair conditioning or styling or hold (page 43, lines 6-10). In this regard, examiner notes applicants' statement that compositions containing aqueous dispersions of insoluble polymer particles may not sufficiently fix the hair or provide satisfactory properties, which only

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supports that it is only silicone polymers (of Kumar) that imparts a hair fixing benefit and not the combination of components as claimed. Assuming that the latter is true, applicants' argument that instant combination provides an improved hair fixing property is moot. Further, as explained before, applicants have not provided any unexpected result in terms of improved hair fixing properties with the claimed compositions.

Finally, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lakshmi S Channavajjala whose telephone number is 571-272-0591. The examiner can normally be reached on 7.30 AM -4.00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lakshmi S Channavajjala

Examiner

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August 20, 2004

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SUPERVISORY PATENT EXAMINER
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